Many thanks to the Postdoc Symposium Committee, the Abstract and Poster Review Committee and our sponsors: The Office of the Vice Chancellor for Research, The Office of Postdoctoral Affairs and The WU Postdoctoral Society for supporting the Annual Postdoc Scientific Symposium.

**2015 – 11th Annual Postdoc Scientific Symposium**
Thursday, April 2, 2015 – Farrell Learning & Teaching Center, Atrium & Connor Auditorium - School of Medicine

**Keynote Speaker:**
Iqbal Hamza, PhD, Professor, University of Maryland, College Park
*My Unexpected Journey into Science*

**Postdoc Speakers:**
Ream Al-Hasani, Ph.D., Anesthesiology
*Distinct subpopulations of nucleus accumbens dynorphin neurons drive aversion and reward*

Michael Montague, Ph.D., The Genome Institute
*Taming wildcats: Signatures of selection in the domestic cat genome*

Felipe Santiago, Ph.D., Molecular Microbiology
*A screen probing fungal-host interactions uncovers a critical role for a protein S-acyl transferase in cryptococcal pathogenesis*

Kathleen Schoch, Ph.D., Neurology
*Tau isoform splicing in vivo: application to mouse models of Tauopathy confers functional and pathological changes*

Marko Spasojevic, Ph.D., Biology
*From the leaf to the continent: Integrating trait variation across scales to understand spatial variation in forest biodiversity*

**Best Poster Award** – Dr. Frans Vinberg, Ophthalmology (Kefalov lab)
Honorable Mentions: Dr. Kelly Flentie, Molecular Microbiology (Stallings lab) and Dr. Ramon Lorca, Obstetrics & Gynecology (England lab)

**2015 Outstanding Faculty Mentor Award** - Dr. Kelly Monk, Developmental Biology

**Panel Discussion:**
Beyond the Bench: Skills for Scientists
**Panelists:**
Corinne Cusumano, Ph.D., Scientist, Polsinelli Law Firm
Laurie P. Shornick, Ph.D., Associate Professor, Biology, Molecular Microbiology & Immunology, Saint Louis University
Dave Smoller, Ph.D., Chief Business Officer, Horizon Discovery

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**2014 – 10th Annual Postdoc Scientific Symposium**
Thursday, April 3, 2014 – Farrell Learning & Teaching Center, Atrium & Connor Auditorium - School of Medicine

**Keynote Speaker:**
Amy Reese, PhD, Associate Professor and Health Professions Advisor, Cedar Crest College
"Agitate vigorously: a protocol for incubating scientists in undergraduate culture"

**Postdoc Speakers:**
Jenny Furman, Ph.D., Neurology
*Tau Seeding Activity is the Earliest Pathological Marker of Tauopathy*

Lydia-Ann Harris, Ph.D., Int Med: Nutritional Science
*Perilipin 5 overexpression in skeletal muscle enhances metabolic flexibility through myokine release*

Natalie Spillman, Ph.D., Molecular Microbiology
*Virulence factors of the malaria parasite that modulate host vasoregulation*
Matthew Toomey, Ph.D., Pathology & Immunology
Carotenoid metabolism and opsin tuning have co-evolved to facilitate avian color discrimination

Junjie Yao, Ph.D., Biomedical Engineering
Fast Label-free Functional Photoacoustic Microscopy of Small Animal Brain in Action

Best Poster Award – Emily Benesh, Ph.D., Obstetrics & Gynecology, Kelle Moley lab
Honorable Mentions: Prithwiraj Das, Ph.D. Biology & Biomedical Engineering (Ben-Shahar & Raman labs) and Kathleen Schoch, Ph.D., Neurology (T. Miller lab)

2014 Outstanding Faculty Mentor Award - Dr. Robert Schreiber, Pathology & Immunology

Panel Discussion:
Life After a WU Postdoc: 10 Years Later A Panel Discussion with the original Symposium Committee

Panelists:
Nicquet Blake, Ph.D., Asst Dean for Admissions and Recruitment, University of Texas Health Science Center San Antonio
Helen Hu, Ph.D., Principal Scientist, C2N Diagnostics
Jeramia Ory, Ph.D., Associate Professor of Biology, Kings College
Doug Rowland, Ph.D., Principle Research Scientist, Center for Molecular and Genomic Imaging, UC-Davis
Catherine W. Striley, Ph.D., MSW, MPE, Assistant Professor of Epidemiology, University of Florida
Guoyan Zhao, Ph.D., Assistant Professor of Pathology & Immunology & Supervisor of Pathogen Discovery Facility, WashU

2013 – 9th Annual Postdoc Scientific Symposium
Wednesday, April 3, 2013 – Farrell Learning & Teaching Center, Atrium & Connor Auditorium - School of Medicine

Keynote Speaker:
Caroline Whitacre, PhD, Vice President for Research and Professor of Microbial Infection and Immunity
The Ohio State University
"The Changing Research Landscape and Advice on Charting Your Course"

Postdoc Speakers:
Terra Barnes, Ph.D., Anatomy & Neurobiology
The Lysosomal Enzyme Targeting Pathway and Mouse Vocalizations: Do Mice Stutter?
Martha Bhattacharya, Ph.D., Developmental Biology
A Model of Toxic Neuropathy in Drosophila Reveals Conserved Genes Required for Axon Degeneration
Tom Cohen, Ph.D., Genetics
Sequencing individual peptide molecules in complex mixtures through DAPES (Digital Analysis of Peptides through End Sequencing)
Cara Lunn, Ph.D., Internal Medicine: Oncology
Mutations in the U2AF1 splicing factor alter hematopoiesis in mice
Deepa Srikanta, Ph.D., Molecular Microbiology
Insights into host: cryptococcal interactions using high throughput methods and RNAi

Best Poster Award – Adam Eggebrecht, Ph.D., Radiology, Joseph P. Culver lab
Honorable Mentions: Kelly Flentie, Ph.D., Molecular Microbiology, Christina Stallings lab and Jessica Williams, Ph.D., Internal Medicine - Infectious Diseases, Robyn Klein lab.

2013 Outstanding Faculty Mentor Award - Dr. Steven Petersen, Neurology

Panel Discussion - "Getting to the Interview"
Panelists:
Tamara Hershey, Ph.D., Professor of Psychiatry, Neurology and Radiology, Washington University in St. Louis
2012 – 8th Annual Postdoc Scientific Symposium
Thursday, March 29, 2012 – Farrell Learning & Teaching Center, Atrium & Connor Auditorium - School of Medicine

Keynote Speaker:
Dr. Tayyaba Hasan, F.M. Kirby Professor, Investigator, Howard Hughes Medical Institute and Director of the F.M. Kirby Center for Sensory Neuroscience, The Rockefeller University

Postdoc Speakers:
Najla Kfoury, PhD, Neurology
Trans-cellular Propagation of Tau Aggregation by Fibrillar Species

Ziv Rotman, PhD, Cell Biology & Physiology
Differential motion dynamics of synaptic vesicles undergoing spontaneous and activity-evoked endocytosis

Tao Sun, PhD, Pediatrics
Cell-intrinsic Sex Differences in cAMP Signaling Pathway Affects Brain Tumor Formation

Eline van Meel, PhD, Internal Medicine: Hematology
Identification of the first disease causing mutations in methionyl-tRNA synthetase (MARS)

Matthew Wyczalkowski, PhD, Biomedical Engineering
Embryonic Wound Healing Mechanisms Investigated by Experiment and Computer Modeling

Best Poster Award – Douglas Durrant, Int Med - Infectious Diseases, Robyn Klein lab
Honorable Mentions: Bosky Ravindranath, Radiology, Yuan-Chuan Tai lab
Gary Port, Molecular Microbiology, Michael Caparon lab

2012 Outstanding Faculty Mentor Award - Dr. Tiffany Knight, Biology

Panel Discussion - "Science and the Community: Educating the Public"
Panelists:
Sarah Elgin, Ph.D., Professor of Biology
Cynthia Wichelman, M.D., Adjunct Professor of Business and Medicine; Assistant Professor of Emergency Medicine
Thomas A. Woolsey, M.D., Professor and George H. and Ethel R. Bishop Scholar in Neuroscience; Faculty Advisor - The Young Scientist Program; Acting Director - Center for History of Medicine

2011 - 7th Annual Postdoc Scientific Symposium
Tuesday, March 29, 2011 – Farrell Learning & Teaching Center, Atrium & Connor Auditorium - School of Medicine

Keynote Speaker:
Dr. A. James Hudspeth, F.M. Kirby Professor, Investigator, Howard Hughes Medical Institute and Director of the F.M. Kirby Center for Sensory Neuroscience, The Rockefeller University

Postdoc Speakers:
Ignacio Gonzalez Suarez, PhD, Radiation Oncology
Novel pathway regulating 53BP1 stability implicates Cathepsin L and Vitamin D in DNA repair

Celeste Karch, PhD, Psychiatry
Extracellular tau levels in cultured cells are influenced by calcineurin

Scott Manson, PhD, Surgery
BMP-7 is a Critical Molecular Determinant of the Reversibility of Obstruction-Induced Renal Injuries

Laura Palanker Musselman, PhD, Internal Medicine - Endocrinology
A Drosophila model of diet-induced type 2 diabetes
Ari Rosenberg, PhD, Anatomy & Neurobiology
Neural mechanisms of 3D orientation tuning and orientation constancy

Best Poster Award - Dr. Najla Kfoury, Marc Diamond Lab, Neurology
Second Place: Dr. Stephen McCartney, Pathology & Immunology, Samuel Klein / Marco Colonna Labs
Third place: Dr. Kiran Kumar Solingapuram Sai, Radiology, Robert Mach/Jonathan McConathy Labs

2011 Outstanding Faculty Mentor Award - Dr. Tammie Benzinger, Radiology

Panel Discussion - "Good Mentoring: How to Cultivate Relationships"
Panelists:
Dr. Helen Piwnica-Worms, Professor and Head, Cell Biology & Physiology
Dr. Bob Mecham, Alumni Endowed Professor, Cell Biology & Physiology
Dr. Erik Herzog, Associate Professor, Biology

2010 - 6th Annual Postdoc Scientific Symposium
Thursday, February 25, 2010 - Eric P. Newman Education Center - School of Medicine

Keynote Speaker:
Dr. Gene Robinson, Professor and Swanlund Chair of Entomology, University of Illinois at Urbana-Champaign

Postdoc Speakers:
Dr. Edwin Antony, Biochemistry and Molecular Biophysics
A physical interaction between the Srs2 helicase and Rad51 recombinase is utilized as a switch to control homologous recombination
Dr. Lillian Cruz-Orengo, IM: Infectious Diseases
CXCR7 antagonism prevents leukocyte trafficking into the central nervous system and treats ongoing disease during experimental autoimmune encephalomyelitis
Dr. Jeong-Sun Ju, Neurology
Valosin-containing protein (VCP) is required for autophagy and is disrupted in VCP disease
Dr. Julian Meeks, Anatomy and Neurobiology
Neural information processing in a mammalian social olfactory circuit
Dr. Hongbo Shao, Chemical Engineering
Morphology Changes of Clay Minerals under Geologic CO2 Sequestration Conditions

Best Poster Award - Dr. Jungsu Kim, Neurology
Honorable Mention Poster Awards - Dr. Sofia Origanti, Cell Biology and Dr. Matthew Thimgan, Anatomy & Neurobiology

2010 Outstanding Faculty Mentor Award - Dr. Erik Herzog, Biology

Panel Discussion - "Non-Research Components of Success as a Postdoc"
Dr. Gene Robinson, Professor and Swanlund Chair of Entomology, University of Illinois at Urbana-Champaign
Dr. Eric Gulve, President, BioGenerator
Dr. Arlene Taich, Graduate Career Strategist, The Career Center at Washington University

2009 - 5th Annual Postdoc Scientific Symposium
Tuesday, February 24, 2009 - Eric P. Newman Education Center - School of Medicine

Keynote Speakers:
Drs. Maria Suarez and Reynold Verret, a married couple who both work in administration at Wilkes University in Pennsylvania. Drs. Suarez and Verret will discuss managing dual scientific careers, their career paths and balancing work and family.

Postdoc Speakers:
Dr. Ashley Bangert, Psychology
Temporal Reproduction as an Early Marker of Alzheimer's Disease
Dr. Yogesh Wairkar, Developmental Biology
Unc51 Controls the Synapse Density at Drosophila NMJ
Dr. Kaihua Zhang, Orthopaedic Surgery
Important Contribution of the Immune System in Regulating the Tumor/Bone Vicious Cycle Independent from Osteoclasts
Dr. Claudia Hilton, Psychiatry
Under-Representation of African Americans in Autism Genetic Research: a Rationale for Inclusion of Subjects Representing Diverse Family Structures
Dr. Luke Wiley, Ophthalmology and Visual Sciences
The Tumor Suppressor, Merlin, Is Required For Withdrawal Of Lens Fiber Cells From The Cell Cycle, Separation Of The Lens Vesicle And Lens Cell Polarity
Dr. Ren-Huai Huang, Internal Medicine: Hematology
Tubular Assembly from Recombinant N-Terminal Domains of von Willebrand Factor

Best Poster Award - Dr. Jackie Brown, Neurology
Honorable Mention Poster Awards - Dr. Yongjian Liu, Radiology and Dr. Stephen Rogers, Pediatrics

2009 Outstanding Faculty Mentor Award - Dr. Craig Coopersmith, Surgery

2008 - 4th Annual Postdoc Scientific Symposium
Tuesday, February 26, 2008 - Eric P. Newman Education Center School of Medicine

Keynote Speaker:
Günter Wagner, Ph.D., Alison Richard Professor and Chair, Ecology and Evolutionary Biology Department, Yale University

Postdoc Speakers:
Dr. Javier Carrero, Pathology and Immunology
Intracellular release of granzyme B drives a rapid listeriolysin O-induced T cell apoptosis
Dr. Jason Lees, Developmental Biology
Interferon gamma protects the cerebellum and brainstem from inflammation and pathogenesis in EAE
Dr. Luciano Marpegan, Biology
Effects of VIP on astrocyte’s circadian rhythms
Dr. Monica Shokeen, Radiology
Optimized High Throughput Assays for Screening Targeted Nanoparticles for Diagnosis and Therapy
Dr. Lin Xu, Neurology
In Vivo Imaging of Acute Dendritic Spine Loss and Actin Depolymerization With Kainate Seizures

Best Poster Award - Dr. Linghui Zeng, Neurology
Honorable Mention Poster Awards - Dr. Dru Dace, Ophthalmology and Visual Sciences and Ramya Rajagopal, Ophthalmology and Visual Sciences

2008 Outstanding Faculty Mentor Award - Dr. Aaron DiAntonio, Developmental Biology

2007 - 3rd Annual Postdoc Scientific Symposium
Thursday, March 1, 2007 - Eric P. Newman Education Center - School of Medicine
Keynote Speaker
Dr. Greg Kopf, formerly Assistant Vice President, Women’s Health & Musculoskeletal Biology, Wyeth Research; Adjunct Professor of Obstetrics and Gynecology, University of Pennsylvania School of Medicine

Postdoc Speakers:
Dr. Eileen Burkart, Internal Medicine: Cardiology
*The Nuclear Receptors PPARβ/δ and PPARα Direct Distinct Cardiac Metabolic Gene Regulatory Programs*

Dr. Xuefang Cao, Internal Medicine: Bone Marrow Transplant
*The perforin/granzyme B pathway is important for Treg-mediated suppression of NK-dependent tumor clearance in vivo*

Dr. John Cirrito, Psychiatry
*Synaptic activity regulates interstitial fluid amyloid-beta levels in vivo*

Dr. Biplab Dasgupta, Pathology & Immunology
*Resveratrol Stimulates AMP Kinase activity in Neurons*

Dr. Christina Taylor, Biochemistry & Molecular Biophysics
*Toward Understanding Molecular Recognition at Rhodopsin / Transducin Interface*

Best Poster Award - Dr. Jessica Clark, Surgery
Honorable Mention Poster Awards - Dr. Vikas Kumar, Anatomy and Neurobiology and Dr. Kevin Noguchi, Psychiatry

2007 Outstanding Faculty Mentor Award - Dr. Karen O’Malley, Anatomy and Neurobiology

2006 - 2nd Annual Postdoc Scientific Symposium
February 8, 2006 - Eric P. Newman Education Center - School of Medicine

Keynote Speaker:
Dr. Lynn Matrisian, Professor and Chair, Department of Cancer Biology, Vanderbilt University School of Medicine

Postdoc Speakers:
Dr. Tiffany Frimmel, Physical Therapy
*Attenuation of sarcopenia in frail elderly obese subjects undergoing weight loss*

Dr. Leonard Maggi, Internal Medicine: Medical Oncology
*Regulation of Growth and Transformation by Nucleophosmin-mediated Ribosome Nuclear Export*

Dr. Kathie Mihindukulasuriya, Molecular Microbiology
*Emerging Virus Surveillance: Rapid Viral Identification Using DNA Microarrays*

Dr. Reuben Thaker, Surgery
*DNA vaccination targeting mesothelin induces rejection of pancreatic adenocarcinoma*

Dr. Marcos Vidal, Molecular Biology & Pharmacology
*Drosophila models for Cancer Research*

2006 Outstanding Faculty Mentor Award - Dr. Bob Mecham, Cell Biology and Physiology

2005 - Inaugural Postdoc Scientific Symposium
Wednesday, February 23, 2005 - Eric P. Newman Education Center - School of Medicine

Keynote Speaker:
Dr. Frank Belloni, Professor of Physiology and Dean, Graduate School of Basic Medical Sciences, New York Medical College
**Postdoc Speakers:**

**Dr. Sujin Bao,** Molecular Biology & Pharmacology  
*Cell Adhesion mediated by Hibris and Roughest Regulates Morphogenesis in the Drosophila Eye*

**Dr. David Brody,** Neurology  
*Anti-Aβ Antibody Attenuates Cognitive Impairment in a Model of Experimental Traumatic Brain Injury*

**Dr. Laurent Seugnet,** Anatomy & Neurobiology  
*Can fruit flies tell us why sleep deprivation impairs day time performance?*

**Dr. Richard Steet,** Internal Medicine  
*COG7 deficiency: a novel congenital disorder of glycosylation*

**Dr. Guoyan Zhao,** Genetics  
*Regulatory modules: identification and verification*

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**2005 Inaugural Outstanding Faculty Mentor Award** - Dr. Linda Cottler, Psychiatry